COST *and* MANAGEMENT

VOL. XXV MAY No. 5

Robert W. Sharwood, Director and Vice-President of Canadian Industries Limited, was born in Johannesburg, South Africa. After graduating in England as a Chartered Accountant, he came to Canada in 1930. From then until 1934 — the year he joined C.I.L. he was employed by P. S. Ross & Sons, Montreal accountants. He was appointed assistant treasurer of C.I.L. in 1937, treasurer in 1939 and vice-president in 1943. He was elected a director and member of the Executive Committee in 1949. An Associate of the Institute of Chartered Accountants in England and Wales, he is also a member of the Society of Chartered Accountants of the Province of Quebec.

Harold P. Wright is the senior partner of the firm of Wright, Erickson, Lee and Company, Certified Public Accountants in Hamilton. Mr. Wright has long been active in the Society of Industrial and Cost Accountants, having been President of the Canadian Society and he was the first President of the Ontario Society. He was also instrumental in organizing several of the Provincial Societies in Western Canada.

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SOCIETY NOTES

PETERBOROUGH CHAPTER WINS FERNIE TROPHY

This is a big year for the Peterborough Chapter. In addition to being the host Chapter to the 10th Annual Conference of the Ontario Society, it will also be the recipient of the Fernie Trophy. This trophy is awarded annually to the Chapter showing the greatest increase in membership for the year.

Under the Chairmanship of Art Pitchford, the Chapter has had a most successful year. The meetings have been consistently attractive and it is quite evident that they have been well appreciated by the members for the average attendance has been about 85%.

Heartiest congratulations are extended to the officers, directors and members of the Peterborough Chapter.

COST AND MANAGEMENT CONFERENCE

Latest word from the Conference Committee is to the effect that the registrations are coming in very nicely, and any who have not yet made their reservations, would be well advised to do so, without delay.

While the Conference will officially terminate on Saturday, June 16th, many are planning on staying over Sunday and we can't think of a more delightful way to spend a week-end.

We would like to draw attention to one item on the registration form which is being overlooked by many of those attending the Conference. On the reverse side of the registration form the third paragraph reads "Arrangements have been made with both resorts so that the luncheons or dinners which might be held at either place will be included in the price of the room where you register as a guest."

New Members

HAMILTON CHAPTER

W. D. Coulter, Building Products Ltd.
D. D. Clarke, Barber Ellis of Canada Ltd., Brantford

KITCHENER CHAPTER

E. D. Ferguson, Perfex Controls Ltd., Guelph
Albert F. Amies, Biltmore Hats Ltd., Guelph
George H. Reed, R. M. Ballantyne Co., Straftord

LONDON CHAPTER

B. J. Sheedy, Marchant Calculators Ltd.
Roger E. DuBois, Kellogg Co. of Canada, East London

REGINA - MOOSE JAW CHAPTER

Vincent Y. Smart, General Films Ltd., Regina

SASKATOON CHAPTER

Norman H. Smith, Hudson's Bay Company

TORONTO CHAPTER

Stuart L. B. Martin, Aluminum Co. of Canada Ltd. (Etobicoke Works)
J. D. L. Harris, International Business Machines Co. Ltd.
G. S. Meyers, Ingraham Canadian Clock Co. Ltd.
H. N. Barber, Ingraham Canadian Clock Co. Ltd.

WINDSOR CHAPTER

Bronislaw Panczyk, Backstay Standard

Chapter Notes

CALGARY CHAPTER

Mr. H. J. Stirling, formerly of Sarnia, Ontario, and presently Assistant Division Personnel Manager, Producing Department, Imperial Oil Limited, gave a talk at the recent meeting on "Industrial Relations — It's Place in Business".

In discussing the function of the Personnel Department, Mr. Stirling stressed the effort made to strengthen line control within an organization, rather than have the Personnel Branch usurp this control.

EASTERN TOWNSHIPS

The regular monthly meeting of the Cost and Management Society was held at East Angus, on April 19th. This meeting was held in conjunction with a plant visit of the Brompton Pulp & Paper Co. Ltd., during the afternoon, which was made possible through the kindness of Mr. H. A. F. Gregory, Mill Manager.

The group assembled at the Company Club House, where Mr. Clifford, the Personnel Manager, gave a good description of the mill and its history back as far as 1881, when it was known as Westbury. The tour of the mill lasted two and a half hours and everyone saw the pulpwood being transformed into paper through its various stages of production. After the tour the group was served refreshments through the courtesy of the Brompton Pulp & Paper Company and dinner was served at 7.00 p.m.

The Provincial President, Mr. D. Peddie, was introduced by the Chairman, Mr. Bob Blake, and Mr. Bruce Pow introduced the guest speaker, Mr. A. G. Durgin. Mr. Durgin's subject was "Paper and Its Growth", and was very interesting, as it brought out the great necessity for the paper industry.

This meeting was one of the best the Society has had, and hopes that it may see more of these plant tours in the near future. The Society wishes to take this opportunity to thank the Brompton Pulp & Paper Company for a most interesting and successful meeting.

HAMILTON CHAPTER

The regular monthly meeting of The Society of Industrial & Cost Accountants was held in the Ten O'Clock Club, April 19th. The speaker was Mr. J. A. Wilson, F.C.A., a governor of the Canadian Tax Foundation. Mr. Wilson reviewed the Income Tax Act, especially the recent changes, and warned of certain features of it which would have to be watched.

Mr. J. N. Allan, R.I.A., Secretary-Manager of the Society, was present, and he gave a short review of the progress made during the season just ending.

The results of the balloting for a new Directorate were announced.

Discussion Group

On April 5th, 1951, the Discussion Group Committee of the Hamilton Chapter held its final group meeting of the current season. On this

occasion, the group was addressed by Mr. Robt. M. Dewey, of the Associated Reciprocal Exchanges, New York, on the subject: "Use and Occupancy for Manufacturers".

The speaker outlined the history of Use and Occupancy Insurance coverage from the first known recorded policy written in 1878 to the present-day types of coverage. Mr. Dewey also strongly recommended that manufacturers carefully review the time limitation clauses in their insurance programs, especially in view of the inability to secure normal deliveries of materials and equipment in the present emergency.

The appreciation of the group was manifest in the discussion period that followed, when Mr. Dewey capably answered questions from the members. Mr. K. M. Horton introduced the speaker, and Mr. S. Butler moved a vote of thanks.

NIAGARA CHAPTER

The April meeting of the Niagara Chapter held on April 18th, at the Foxhead Inn, Niagara Falls, was addressed by Mr. Roy E. Cooley, Factory Comptroller of the American Machine & Foundry Co., of Buffalo, N.Y., on the subject of "Cost Controls."

It is necessary for us to obtain the most from our labour and material due to the inflationary condition of our economy and this can be accomplished through the use of adequate cost controls.

The meeting was conducted by Mr. Don Jones, chairman, and the speaker was introduced by Mr. Leonard Neal and thanked by Mr. F. Hesler.

WINDSOR CHAPTER

The Chapter was again honoured by having an officer of the Canadian Society as its principal speaker, in the person of Mr. G. I. MacKenzie, 1st Vice-President. As Industrial Advisor of the Bank of Montreal, Mr. MacKenzie was well qualified to speak on the subject "Technical Eyes in Banking".

He explained that his position with the Bank was that of an engineer who is associated with industrial banking and whose chief function is that of authorizing, supervising, and obtaining repayment of loans. To keep Canadian Industry active, the rate of increase in Bank loans has been stepped up tremendously in 1950, with the result that credit curbs had to be issued. To supervise existing loans and to advise bankers on granting new loans, the need was felt for a technical man whose knowledge and training would assure the repayment of the loans, and prevent, by proper guidance, defectively managed businesses from failure.

Mr. MacKenzie concluded his talk by stating that management is now becoming equipped with a new tool — adequate and efficient cost accountants whose work will pay handsome dividends in future.

C & M ROUND-UP

By N. R. BARFOOT, R.I.A.

MAN POWER COUNCIL

Labor Minister Gregg has announced the creation of a national advisory council on manpower, to include representatives of labor, agriculture and industry. The council will consist of 27 members. The object of the new group is to study the manpower needs of the country in this time of unprecedented labor demand and in some way assist the government to present its plans for maximum manpower usage to the public.

CANADIAN CENSUS

As everyone knows, this year Canada will take its decennial census. Enumerators will ask a multitude of questions on age, origin, employment, etc.

There is, however, a wider aspect to this compilation of statistics on Canada itself. As a result of a series of conferences during the 1940's, the 22 nations of the American continents made plans to take a census of thier respective nations between 1950 and 1951. It was also decided to organize their census takings on a common basis and to take inventory of agriculture, live stock and forest products.

It was hoped thus, to so integrate the statistics of resources and facilities of the Americas that the entire economy could be assessed and overall needs brought to light.

Further work of this nature was planned under the auspices of the United Nations Statistical Office, to include more and more parts of the world. The end result to be a central source of demographic data for the rise of specialized agencies of the U.N. and of national governments.

U.S. STEEL ANNUAL REPORT, 1950

A most refreshing presentation of the annual report and statements is made by the United States Steel Corporation for 1950.

Page 1 is called U.S. Steel's year — at a glance, and it is just that. Comparisons of significant financial and statistical figures for '50 and '49 are made in a simple listing, ranging from income total to average weekly earnings of employees. Anyone can read this and understand.

Detailed explanations of the year's operations are presented by the chairman of the board in the next 20 pages of the report.

A financial summary in detail with interesting comparisons by means of bar charts show the ascending cost of an hour's work, and the descending scale of profit margin. It is of note to see that from 1936 to 1950 basic wage rates rose from 66 cents per hour to $1.74 and additional hidden payroll benefits from 4 cents per hour to 37 cents.

The Income statement is free of accounting terminology; for example, depreciation is expressed as wear and exhaustion of facilities which is much more descriptive.

A very clear picture is given of working capital position by showing additions and deductions from same, leading to a net reduction.

This report is recommended to the attention of all accountants who prepare the annual or quarterly P. & L. and Balance Sheet in the time honored way.

SPENDING CURB?

A new device to put the brakes on industrial spending is being considered by Federal officials — retarded depreciation.

Instead of accelerating write-off of new plant and equipment for tax purposes, the idea is to allow only a certain fraction of the normal rate for non-essential purposes.

WEST COAST ACTIVITY

There seems to be every possibility that a big development in aluminum production will take place in British Columbia.

Over half a billion is planned to develop power, roads, plant and equipment, which would permit smelting of 1,100 million lbs. of aluminum per year.

INFLATION?

A ceiling on bank loans has been suggested by the Bank of Canada and voluntarily adopted by the chartered banks. A total figure of $3,000 million has been set for 1951. Nineteen-fifty loans were out of all proportion and we were faced with the old bugbear of too much money chasing too few goods with resulting price inflation.

There is no way of knowing if the figure set is correct and no way of estimating how far 1950 loans were out of line with real needs of Canadian business.

It will be interesting to watch the effect of this program. Of passing note, is the fact that such a national loan control could operate only in a country such as Canada where the branch banking system is in effect and where there are comparatively few banks.

IMMIGRATION

During 1950, 73,912 persons came to Canada from other countries. This is a decrease of 22.4% from 1949.

Immigrants from the British Isles numbered 13,427, which showed a sharp decrease from the previous year. People from Italy, Holland, Poland and Germany, in that order of numbers, comprised the bulk of the new citizens.

Ontario received 39,041 of the total influx, Quebec 13,575 and the other provinces less.

Occupational categories were as follows: Farming class, 28,027; skilled tradesmen, 10,727; unskilled and semi-skilled, 8,745; and the balance miscellaneous.

Current Literature Digest

By WM. HENDERSON, R.I.A.

INTERNAL CONTROL AND MACHINE ACCOUNTING, by S. A. McAdams — The Internal Auditor, March 1951.

Machine accounting is considered in this article from the point of view of internal control. "The machine room functions must be considered as a mechanical operation insofar as accounting is concerned and pre-determined manual controls must be established in view of this fact," states the article.

Specifically, the article describes methods of setting up controls for punched card reports. Depicted are such controls respecting: (a) sales statistics, (b) billing customers, (c) relieving inventory, (d) billing newspaper advertising, (e) recording and analysing purchases, and (f) payrolls.

WHAT THIS COUNTRY NEEDS: IMPROVEMENT IN MATERIAL HANDLING, by William F. Lucas — The Controller, March 1951.

Mr. Lucas makes a convincing case for improved material handling. He says: "Many management groups agree that production machines have been developed to peak efficiency until such time as the great waste of time, effort, space, motion and money in present handling of raw material and stock in process is overcome."

"The greatest benefit derived," the author states, "is direct reduction in labour costs by reduction in the number of employees required in each department of a production process." But other distinct benefits are described: improved working conditions, reduction or elimination of bottlenecks, increased output of product, and decreased need of plant space.

Mr. Lucas claims "that over 22% of American labour is utilized for material handling." The shortage of labour, in our present semi-war economy, makes it almost imperative that man-power be diverted from every non-essential process. Improved material handling would release many to more productive pursuits.

Speaking of space, Mr. Lucas says: "Space is one thing that can leave your plant without being carried out."

In conclusion the article presents a "yes" or "no" test. Affirmative answers indicate the existence of high handling costs.

THIRTY DAYS HATH SEPTEMBER, by Lawrence P. Jennings — N.A.C.A. Bulletin, March 1951, Section 1.

Mr. Jennings discusses the incomparability of monthly financial results based on our Gregorian calendar month. Not only are the months of the year comprised of a non-constant number of total days each; but the number of working days per month varies probably even more so. Six to eight legal holidays a year, augmented by a summer vacation period make for months of extremely varying constituent activity periods.

The thirteen-month year is used extensively by business concerns; but that too is based on twenty-eight constant days' content for each month (excepting one in which may be housed the extra day for normal years, or the extra two days for a leap year), and fails to recognize the number of days actually worked in the period.

Further, the extra book closings (thirteen as against twelve) may create non-commensurate expense. Lastly, for shareholders and externally interested parties, monthly financial statements (when prepared for such persons or bodies outside managerial circles) must be adjusted in time content to conform to the Gregorian calendar.

The author commends a method used by the Caterpillar Tractor Company to solve this problem. The objective is an accounting month comprised of an equal number of working days. The method in the understanding of this reader, is to first deduct the number of days represented by Saturdays, Sundays and legal holidays from 365. If for illustration, there were 6 statutory holidays allowed annually, the work month would be 21.25 days — that is, 365 less 110=255÷12=21.25, or to state it in a workable way — twenty-one days. Next, mark off from January second each year periods of twenty-one days — up to the month in which summer vacations begin. Each termination mark is a month-end. Finally, mark off in a reverse direction periods of twenty-one workings from the last working day in December — until you reach the month in which summer vacations end. Generally such a month-end will fall in the actual Gregorian month whose name it uses on reports — but not always. The discrepancy will be small, but can exist. Example: In 1951, where there are six statutory holidays and a two week vacation shut-down in August, the ninth month would end October first .

The month in this example, August — in which vacation period exists will deviate from a twenty-one working day content, and will be an incomparable one. But as the author says of the method: "it is eleven twelfths perfect."

BUDGETING OUTPUT FOR STANDARD COSTS, by F. Clive De Paula, T.D., A.C.A., A.C.W.A. — The Cost Accountant (United Kingdom), March 1951.

Mr. De Paula discusses the effect of Output levels on costing rates, volume variances, cost of goods sold and inventory valuations.

The fact that a volume variance represents under or over absorbed fixed expense is explained. Too, it is emphasized that volume variances can stem from many causes. The true cause should be looked for, and remedial action instituted to the extent possible.

Output standards are analysed from many angles. For example, the Idealistic Standard with its usually unattainable objectives; the basic standard which is used conjunctively with current ones; and the "guestimate" Standard, to paraphrase the author.

Practical capacity is defined as theoretical capacity from which is deducted idle time expected from unavoidable delays.

Average capacity is defined as practical capacity less idleness caused by normal lack of sales orders. Practical capacity has the effect of keeping inventory values lower than average capacity, because costing rates are lower. Average capacity, however, results in costs which more closely

parallel actual results, and for that reason are of greater value in price-setting.

Idle capacity and the author's views on its treatment are paraphrased below:

1. When caused by current conditions such as lack of orders or lack of material, it is best to budget for full output. Volume variances thrown up will measure the cost of not obtaining additional orders, or of not securing additional material.
2. Sterile plant of a more or less permanent nature — first segregate expenses which would disappear upon disposal of such plant. Then:
   (a) Charge off such expense to Profit and Loss account instead of to factory overhead.

   or

   (b) Charge off such expense to administration, and to one account therein, which account will house such items of expense irrespective of department or process involved. Such account would be budgeted, but if administration expenses are apportioned to factory overhead, production costs will receive the full impact of such sterile plant expense. However, since there is only one such account existent, entries to it are easily identifiable and traceable.
3. Special Purpose Plant, used only occasionally — charge full cost of plant to work going through it, even though cost rates are high. However, sub-contracts would increase work volume, and lessen actual unit costs. A lesser costing rate is suggested for purposes of potential customer quotations; but formal costing rates to remain unchanged.

OTHER ARTICLES OF INTEREST

UP-TO-THE-MINUTE COSTS FOR MANAGEMENT PLANNING, by I. Wayne Keller — N.A.C.A. Bulletin, March 1951, Section 1.

FUNCTIONING OF STANDARDS IN COST CONTROL, by Paul C. Taylor — N.A.C.A. Bulletin, March 1951, Section 1.

USING THE FIGURES FOR CREDIT APPRAISAL, by Robert Young — N.A.C.A. Bulletin, March 1951, Section 1.

WORK OF A MANUALS AND PROCEDURES SECTION, by Robert W. Grim — N.A.C.A. Bulletin, March 1951, Section 1.

COST ACCOUNTING FOR A RESEARCH LABORATORY, by J. A. McFadden—N.A.C.A. Bulletin, March 1951, Section 1.

MANAGERIAL CONTROLS — THE CONCERN OF INTERNAL AUDITORS, by H. C. Adams — The Internal Auditor, March 1951.

A TRILOGY ON INTERNAL AUDITING OF NON-ACCOUNTING FUNCTIONS, by H. C. M. Cobb, D. I. Meriney, H. E. Forbes — The Internal Auditor, March 1951.

"DON'TS" IN REPORTS PREPARATION — The Controller, March 1951.

ADDRESSES OF PUBLICATIONS

The Controller, 1 East Forty-second Street, New York 17, N.Y.
The Cost Accountant, 63 Portland Place, London W.1, England.
The Internal Auditor, 120 Wall Street, New York 5, N.Y.
N.A.C.A. Bulletin, 505 Park Ave. (Fourth Floor), New York 22, N.Y.

C.I.O.S. INTERNATIONAL EXCHANGE LETTERS

SWITZERLAND: LETTER NO. 2

Subject: Administration

Extent of Operations: International

1. *Firm*

This is a firm manufacturing alimentary products for children and diabetic products. The firm has been in the hands of the same family from the beginning, and the author of the present letter is a representative of the third generation.

2. *General Position*

The general position of the firm depends above all on the evolution of agricultural policy in our country, since almost all our raw products come from agriculture.

The Swiss agricultural policy is marked by a high degree of protectionism. It is impossible to maintain an agricultural class unless that class is guaranteed sufficient remuneration to cover production. In fact, the cost of agricultural activities is particularly high because of the poorness of the soil, the parcelling out of the land in small properties and the cost of labor. The cost price of Swiss agricultural products is therefore a good deal higher than international prices. The protectionist agricultural policy in practice at present is justified to a certain extent by the need for maintaining a strong peasant class in our country, which contributes to the political and economic policy of the nation.

* * *

In our particular industry, this situation causes our prices to be so high that it is no longer possible to compete with foreign markets, even with products inferior in quality which nevertheless are often sold at half our prices.

We have therefore been obliged to establish abroad manufacturing centres which permit us to obtain finished products at reasonable prices, maintaining however, our technical and commercial head office in Switzerland. Our problems are therefore

those of an undertaking which has several manufacturing establishments but a sole directive.

3. *Economic Situation*

A firm such as ours is obviously sensitive not only to the economic trends of a single country but also to the entire international economic situation. In Switzerland, where we maintain our home office, it can be said that there have been three distinct phases: a more than normal activity, with a marked "boom", to a certain extent artificial, from the end of the war to the second half of 1948, then a progressive return to normal up to the outbreak of war in Korea, followed by a fresh outbreak of prosperity from that period, though this new phase is in no way comparable to that which occurred at the end of the war.

But we hope that the period of inflation and of rearmament on which the world has just started will not interrupt the efforts being made to bring about a United Europe. We firmly believe that the time has come for abolishing national frontiers and for the creation of an enormous European market.

4. *Problems of Organization*

As stated above, our problems are those of a firm with several centres of manufacture. These problems are complicated by the fact that these centres are situated in various different countries.

In order to cope with this situation we have adopted the following measures:

Technical

Great attention has been given to the training of young executives, capable of taking responsible posts in foreign surroundings. When such posts arise, a selection is always made from the technical personnel of the head office. We have always found regular psychotechnical analyses of staff very useful.

Control over manufacture is very strict. All the factories in each centre are controlled qualitatively by a central laboratory, attached to the general technical division. The slightest relaxation in the maintenance of the high qualitative level of the goods manufactured is thus immediately detected and necessary measures taken without delay.

Administrative

The direction and control of a number of centres in different countries has been made possible solely by the *standardization* of working methods.

We therefore use in all branches the same accounting system, the same internal forms, the same method of checking stock, etc.

We also employ the principle of rigid budgetary control, so that the central division may verify a *priori* as well as a *posteriori* that general instructions are applied down to the smallest detail.

Commercial

Errors committed by the central division may have very serious consequences since they will affect all the countries with which we have dealings. In order to avoid such errors we make a systematic application of the technique of *studying markets* in all phases.

The *training* of commercial personnel, is centralized under the main division in such a way that personnel is imbued with the principles which govern the firm, at the same time as knowledge is obtained of all its activities.

Publicity is prepared in its main form by a central publicity service, and is then applied by the publicity service in each country, with due regard to the conditions of the market.

Statistics have been given special emphasis. The central division service of statistics possess the necessary data on sales in the different countries concerned. At the same time, however, the real value of these sales is calculated in relation to the situation of the market, according to estimates made of the sales of competitors (when these are known).

5. *Principles of the Firm*

We believe that even more valuable than the organization described above is the *personal contact* of the head of the firm with his fellow workers; this gives to the whole undertaking confidence, enthusiasm and the will to succeed. Our entire activity is dominated by the desire to work with other men in an atmoshpere of humanity.

The Measurement of Profits in Business

By R. W. SHARWOOD, C.A.,

Vice-President, Canadian Industries Limited

To be of value, any figure yardstick used for measurement of profits must be honestly compiled, it must be such that it can be used for individual companies and yet be comparable to a similar calculation of other companies in the same or a different line of industry.

It seems to me that there are two jobs for accountants to do in the business world. One is to determine what are the profits of business in total dollars, and the other, which is equally important, is to interpret those profits to the many people who do not fully comprehend conventional accounting. We will concern ourselves to-night with the problem of interpretation of profits rather than the determination of profits.

There was a time, not many years ago, when financial accounts were examined for the most part only by business managers, owners or by highly trained accountants. These persons, with their general economic knowledge, were in a position to appreciate that financial statements represented only an accounting of money. They knew that the success of a business and its profitability could not be determined solely by the analysis of monetary accounting figures and that there were other important economic facts that had to be known and watched in the running of a business. Business managers were fully aware that when the value of the dollar was changing the financial statements had to be interpreted in the light of those changing circumstances. If, for example, the purchasing power of a dollar was reduced by half the shareholders and other interested groups would expect an increase in their dollar pay.

To-day a much wider group of persons takes an interest in financial statements. Politicians are interested in determining whether profits are unreasonable or possibly searching for op-

A paper presented before the Montreal Chapter.

portunities to impose new or higher taxes; employees are interested; consumers watch in order that they may determine the fairness of selling prices; and last but not least, the shareholder is interested in finding out whether the profits are adequate.

Many of these persons are neither familiar with the conventional and legal ties that surround accountancy, nor are they familiar with the meaning of the precise, but not necessarily self-explanatory, language that is used in accountancy and required by law. In my opinion, the problem of expecting these persons to understand technical financial statements and to interpret them in the light of current economic conditions is about as insoluble as that of expecting a layman to understand a doctor's prescription written in Latin! The business man, therefore, needs to find some way of giving the public a better opportunity to form an opinion as to the reasonableness or adequacy of the profits that result from the enterprise and resources used in carrying on a business.

Some attempts have been made in Canada and the U.S.A. to make financial information more intelligible to the public by the use of simplified language in financial statements; and also by what is now commonly known as the breakdown of the sales dollar. I suggest that many of these forms of simplified statements are still difficult for the uninformed to understand. Moreover, variations from conventional technical accounting language can cause unintentional misunderstandings and are, therefore, open to serious abuse. Neither the use of simplified statements nor the breakdown of the sales dollar, however, has the effect of interpreting for the public the profit results, and, as it is the profit results which interest most people, it may well be that we must concentrate on providing an interpretation from the existing financial statements, rather than by trying to change the form of the statements themselves.

In order that there shall be no misunderstanding, I should like to clarify my position at this point. I do believe that some changes in the technical language of the accountant should be studied; but I doubt that even the introduction of such changes will solve the difficulties for the public at large. Generally speaking, far too much emphasis is placed on the variation from year to year in the total dollar profits of business. How often have we read in the newspapers in the last few years that

such and such a corporation has earned all-time record dollar profits. Many of the financial newspapers have fallen into that trap and what I am going to suggest is that that sort of information is unintentionally highly misleading.

Let us take the example of a company which earned a profit of $100,000 in 1939 and ten years later in 1948 a profit of $500,000, an increase in profit of five times in a period of ten years. What could have happened to cause such a large increase in profits? In the first place let me emphasize an obvious point. No company can make a profit at all unless its customers are willing to buy the products at the quoted selling prices. One must surely therefore assume that the quality of the products and the selling prices of the products were such as to satisfy the customer. In order to keep this point well established in our minds I think we should now give a name to the company we are using as an example, and call it "Satisfied Customers Limited".

An examination of the balance sheet of Satisfied Customers Limited discloses that during the ten year period a large sum of capital money was expended to increase its manufacturing plant by five times. Consequently it was able to produce and sell five times more goods in 1948 than it was in 1939. It had a larger investment in plant and it, therefore, earned a larger profit.

The next obvious question is, where did the company get the money from to spend on the expanded plant? Well, Satisfied Customers Limited was like many other companies and it obtained the additional cash from three sources.

(1) It obtained new money from its shareholders by issuing new common stock and from bond holders by making a bond issue.

(2) It retained in the business about 25% of its profits over the period as a result of declaring dividends that were equivalent to only 75% of its profits.

(3) It recovered as cash earlier capital expenditures by means of setting aside depreciation.

Satisfied Customers Limited decided to invest this money in expanding its plant and was it not proper, therefore, with this increased investment that it should earn a larger profit?

So often these figures can be understood more clearly by using the simplest explanation:

If a man owned one taxi in 1939 but as a result of accumulating part of his profits and of borrowing some money from the bank he bought a second taxi so that he owned two taxis in 1948, would you not expect his profits in 1948 to be in excess of his profits in 1939?

And so it is with our company — Satisfied Customers Limited. The expanded investment resulted in increased profits. Five times as much investment brought in five times as many dollars. But what did the shareholders think of this? The 1939 dollars were worth say twice as much in purchasing power as the 1948 dollars, so in fact the shareholders only got two and a half times as much profit, when that profit is related to purchasing power, in exchange for increasing their investment five times.

It seems to me, therefore, that as accountants we can divide the job of interpreting profits into two parts. One is to find a way of measuring profits assuming that the value of the dollar remains constant over a period of years, and the other is to adjust the solution to take care of the changing value of the dollar.

Now can we not as accountants try to face up to a challenge and produce a yardstick for measuring profits which will present a reasonably fair picture of the profit results of business? To be of value the measurement must be honestly compiled. It must be such that it can be used for individual companies and yet be comparable to a similar calculation of other companies in the same or a different line of industry. Throughout our consideration of the problem primary importance will be attached to the applicability of the possible standard to manufacturing rather than any other type of industry.

The object is to provide a figure yardstick which will disclose the rate of profit actually realized. Obviously, such a figure cannot indicate the extent to which the rate of profit should vary because of such items as the degree of risk in the business, the value of the services rendered by the organization, the state of efficiency, the managerial skill applied, or the industry's current capital requirements. At the start, therefore, we must recognize the incompleteness of any figure information in respect of supplying proof as to what profit should be and limit ourselves to provide a yardstick as to what profits are.

I should like to record at this time that I do not claim to have solved all the problems. I shall, however, lay before you the result of some work which I do believe is the foundation of something real and deserving of careful attention. Many of the remarks I shall make will be provocative and will cross the paths of professional accountants and others. I make no apology because I think you will all agree that if we are in search of something new we must inevitably, sooner or later, tread on somebody's toes.

For the moment I propose to ignore completely the effect on profits of the very substantial change in the last ten years in the value of the dollar. I am not ignoring it because it is not important, but because the problem, I believe, must be attacked in two parts. I shall have something more to say a little later on the changing value of the dollar.

Let me dispose very quickly of the present and commonly-used measurements of profit. They are total dollar profits; profit per share of common stock; profit as a percentage of sales and profit as a percentage of net worth. With the exception of the last item, profit as a percentage of net worth, I do not believe that there is any need for me, in a gathering such as this, to explain these means of measuring profits. None of the first three, that is comparison of total dollar profits, profit per share of common stock and profit as a percentage of sales can possibly provide a yardstick for the measurement of profit such as we are looking for.

Record total dollar profits should naturally result from the present high level of national income and from the unusually great expansion of productive facilities. High dollar profits, however, certainly do not necessarily imply that industry is earning excessive profits.

Profit per share of common stock is a convenient means of relating profits to the market price of stock. Yield, based on market price, is an expression of the general shareholder-investor free market opinion of the capital and income security of the stock.

Profit as a percentage of sales has a value in limited fields to show—

1. That average selling prices do not contain a large amount for profit.
2. That a comparatively minor change in either the selling price or the cost can convert the profit into a loss.

Apparently a low profit as a percentage of sales is accepted by the public generally as an indication of the absence of excess profits. The general public, however, or for that matter the average shareholder, probably does not understand why profit as a percentage of sales is low for a merchandising company where turnover is high, and high for a manufacturing company where turnover is low.

At first blush, profit as a percentage of net worth, that is, shareholders' capital and undistributed surplus, does seem to offer a useful and proper measurement of profit. In fact, many authorities, particularly professional accountants, advocate this measurement. It is argued that profits are produced by the use of shareholders' money which is represented by capital and surplus, and that profits can be measured realistically only by relating them to net worth. Despite its fairly wide usage, the rate of return on net worth is open to several serious reservations as a significant measure of profit.

The net worth of a company is, of course, in no sense a measure of the total assets used in the business for the combined total of capital stock and surplus is dependent on the method of financing employed by a company. The larger the proportion of a company's total capital obtained through borrowing, the smaller the net worth and the higher a given profit will appear when stated as a rate of return on net worth. Risks of trading with equity capital are by the same token enhanced, with the result that profits fluctuate more widely and are more likely to be converted at times into losses. Since methods of financing differ between industries and between firms, use of the net worth ratio for comparison must be viewed very cautiously.

Professor Sumner Slichter of Harvard University makes the following comments regarding the use of net worth:

> "One of the most widely used and most misleading measures of profit is the ratio of profits to owners' equity. It is difficult to see why this measure of profits is ever used. Owners' equity is only loosely related to the original equity investment. It is diminished by losses and mark-downs and write-offs which represent recognition by management that investment mistakes have been made. A corporation may show a high return on the owners' equity for the simple reason that the concern lost money heavily for a number of years and the owners' equity in consequence has been greatly

> reduced. The recipients of this high rate of return on owners' equity would certainly not regard themselves as fortunate. The high rate of return would not measure business success so much as it would measure business failure."

There is no doubt in anybody's mind that industrial profits do and should result mainly from the demand for products; from the use of plants, machinery and equipment; and from the use of the current assets necessary to operate the plant. The money invested by a company in plants, machinery and equipment, i.e. fixed assets, and the money invested in accounts receivable, inventories, etc., i.e. current assets, may be derived from several sources. They may be derived not only from the shareholders in the form of capital and undistributed surplus, but also from loan financing, i.e. bonds or bank loans; creditors, and certain types of reserves, such as depreciation. No matter the source from which the money is derived, the company makes use of the money and invests it either in current or fixed assets, and uses the current or fixed assets for the purpose of producing goods.

I am going to argue, therefore, that the amount of money a company has in use and at risk is the total of gross current assets — the necessary working cash balance, accounts receivable and inventories; and its total gross fixed assets, i.e. plants, machinery and equipment, before deducting depreciation reserves. That is the amount of money that the company has put to work and that is the amount of money that the company is risking in the business venture. I believe, therefore, that that is the amount of investment against which to relate profits for the purpose of obtaining a reasonably accurate and comparable measurement of profit.

You are, of course, all aware that generally speaking it is common to arrive at the working capital of a business by taking the net current assets, i.e. cash, accounts receivable, inventories less accounts payable. I am suggesting that the amount of money in use and at risk is the gross current assets and not the net current assets. A loss in current assets, say through the non-collection of an account receivable or a drop in the value of an inventory, is a risk of the business and does not automatically

reduce a current liability by a corresponding amount. The creditors still have to be paid and the loss is in reality for the account of the shareholders. It is the shareholders' loss regardless of whether the money came originally from the net worth, from the funded debt or a bank loan or from the accumulation of reserves. The shareholder occupies the residual or buffer position in the undertaking. He furnishes the essential layer of risk capital but in authorizing the borrowing or accumulation of funds from other sources he takes the risk and must see that the others are paid off regardless of what happens to any of the assets.

The arguments used for including in investment gross current assets apply in large measure to support the contention that gross fixed assets should also be included in investment. Reserves for future losses in the value of fixed assets, whether to provide for loss in value from obsolescence or any other cause, are in fact provisions against contingencies which have not yet happened, and such reserves should not, therefore, be deducted from investment. Depreciation reserves in nearly all companies include an important amount as a provision against obsolescence and in any event book figures for depreciation, accumulated usually by equal annual instalments, do not reflect the losses that have actually occurred in the fixed assets.

Due to the legal requirement of having to prepare financial statements once in every twelve months, it is obviously necessary, from the point of view of the determination of income for a twelve month period, to provide for depreciation in each twelve month period in such a manner that at the end of the useful life of the asset it will have become fully depreciated. Assuming the useful life of an asset to be ten years, it would be entirely reasonable for the purpose of determining annual income to provide for 10% depreciation in each year's accounts for ten years. This does not, however, necessarily mean that the plant loses economic value at the rate of 10% per annum. In fact, I would like to suggest to you that in many modern plants the great bulk of the loss does in fact occur just prior to the plant being scrapped and not in equal annual instalments over the life of the plant.

While up to the present time I have suggested that no amount for depreciation should be deducted from the fixed assets for the purpose of determining investment at risk and in use,

I must make one important qualification. It can be argued strongly that there should be a deduction for the actual "economic loss" suffered on fixed assets in the same way that any losses on inventories are deducted from gross current assets. I define economic loss for this purpose as follows: Provided that a market for the products of the plant exists, economic loss is the capitalized value of the reduction in efficiency as reflected in lower output and/or higher cost of production, caused either directly by increased operating expenses, such as maintenance, or indirectly by the inability to adopt technological improvements in comparison with more modern units. At the moment I am afraid that I am at a complete loss as to the manner in which to determine any accurate figure for economic loss, and I propose, therefore, to ignore it.

In the argument for the inclusion of gross fixed assets in the investment figure and in ignoring any deduction for economic loss, I feel reasonably certain that in the large majority of cases the result is far more accurate than in taking the cost of assets less accumulated depreciation reserves as shown by the books. I believe you will agree with me when you consider the present build-up of depreciation reserves, and particularly what they are liable to be in future years. As part of the country's financial planning schemes, the government several years ago adopted policies of granting accelerated depreciation and double depreciation, and just recently the government has adopted the plan of providing depreciation on the reducing balance method at approximately double the previous depreciation rates. I am sure you will agree that to the extent that companies follow these schemes in their own accounting, the accumulated depreciation reserves have no relation whatever to the actual economic loss of the plants concerned.

While mention has been made of the justification for including in investment all existing assets, but excluding any assets which have been lost, we should not overlook the fact that the value of goodwill, patents, trade marks, processes and the knowledge possessed by an efficient organization, have a real value. The difficulty of establishing the value for such an intangible asset, which is similar in degree to that of determining the economic loss in the value of productive facilities, makes it impracticable, I believe, to include goodwill in the investment.

The fact that these two problems, concerning the loss in economic value of productive facilities and the value of intangible assets, appear at the moment to be impossible of solution should not, I believe, prevent the use of a yardstick which, while not perfect, does eliminate many of the disadvantages of other forms of measurement of profitableness.

I suggest, therefore, that a return computed on the basis of net profit, before deducting interest on loans, related to gross investment is the most practical measurement of profits available and should enable the shareholders and others to understand how profitably the total assets are employed. A return computed on this basis could be compared properly, irrespective of the various methods of financing and the various ages of the productive facilities, with a similarly compiled return for prior periods for the same company, and a similarly compiled return for other companies even in different industries. Furthermore, the use of such a figure has a value in preventing, at least to some extent, the mis-use of other information because the return on gross investment would provide a yardstick that could be used for comparative purposes, while the earnings per share of common stock would show how the profits have affected the value of the shareholders' investment in the enterprise.

I mentioned previously that I would have something to say about the effect of the change in the purchasing power of the dollar. Apart from technical complexities, accounting has on some occasions failed, at least temporarily, to reflect accurately new conditions and new problems. Some of these conditions have been found to be only temporary, but amongst them there is the important problem of the current, rapidly changing, value of the dollar.

Accountancy has certainly failed so far to provide for the alteration in the purchasing power of the dollar other than by changes occurring in book values over a long period of years. The whole structure of accounting is predicated on the assumption of a stable dollar. Custom appears to endow figures once put on the books with a large amount of sanctity. It would be grand if the economic significance of the monetary unit did not fluctuate, but unfortunately that is not the case. Consequently,

(Continued on Page 182)

CANADIAN INDUSTRIES LIMITED

Extracts from Financial and Operating Record — Years 1939 to 1949 Inclusive

No attempt has been made to adjust the figures in this tabulation to reflect variations in the purchasing power of the dollar; changes in the general price level should therefore be taken into consideration in comparing the figures for the eleven-year period.

Year	Physical Volume of Business C-I-L Manufactured Products (Note A) Index Base 1939=100	Average Operating Investment (Note B) Amount in Thousands of Dollars	Average Operating Investment (Note B) Index Base 1939=100	Expenditures on New Plants, Buildings and Equipment, and Land In Thousands of Dollars	Net Operating Income as Percent Return on Average Operating Investment (Note C)	Total Net Income In Thousands of Dollars
1939	100	$52,697	100	$1,768	10.5%	$6,232
1940	117	55,732	106	2,803	8.5	5,396
1941	138	59,561	113	3,056	7.6	5,383
1942	144	63,739	121	3,804	5.9	4,611
1943	155	67,024	127	926	5.6	4,445
1944	159	70,744	134	460	5.7	4,556
1945	160	75,919	144	1,688	5.7	4,929
1946	178	78,202	148	5,192	6.3	6,225
1947	202	82,723	157	5,343	6.4	7,163
1948	220	89,656	170	3,932	8.0	7,728
1949	242	96,972	184	6,047	8.3	9,001

(A) This column reflects the approximate changes in the quantity of manufactured products sold and excludes resale business and sales of subsidiary companies. Production of war materials was undertaken by the subsidiary company. Defence Industries Limited.

(B) Operating investment comprises total assets as shown in the Company's balance sheets exclusive of goodwill, patents and processes and investments in shares of subsidiary and other companies; the average is based on the investment at the beginning of each calendar month.

(C) Net operating income is expressed as a percent return on the average operating investment, as defined in Note B. If the average operating investment were to be increased to include plants, buildings and equipment at current replacement values instead of at book values, the percent return would be lower, particularly in more recent years.

any consideration of profit as a return on book values of investment should recognize that profit is reported in current dollars, whereas most fixed investments were made in dollars of a much greater purchasing power. It is a mathematical error to strike a ratio between things of a different kind. Only by adjusting the investment or else the profit to like dollars is such a ratio entirely valid.

To quote once again Professor Slichter:

> "Why have American corporations so generally over-stated their profits during the last few years? The principal reason probably is that accounting is a conservative and conventional art, and accountants are slow to adapt their methods to new conditions and new problems. Accountants are not used to taking account of permanent changes in the price level."

Although most accountants generally agree with the economic axiom which states that without maintenance of capital there can be no income, and agree that there is a need to recognize in the cost of goods produced the greater current value of the consumption of capital assets, there is very considerable disagreement over just how this is to be done.

Nevertheless, I believe that companies should be encouraged to know what is the current value of their fixed assets regardless of whether or not they make any adjustment on their balance sheets. If such figures could be known, then I would suggest that the return on investment should be examined both on the book values of assets and on the current value of assets.

Before closing, I would like to make it quite clear that in using the formula I have described of a return on total assets, i.e. gross current assets and gross fixed assets, I do think that great care should be used to attach an explanation as to exactly how the computation has been made. Without such an explanation it might be confused with the several other ways of computing return on investment, and no chance should be taken of adding confusion to an already confused situation.

Some Aspects of Company Organization and Reorganization

By H. P. WRIGHT, C.P.A., R.I.A., F.C.I.S.

Senior Partner, Wright, Erickson, Lee & Co.

With the evolution of the highly developed system of free enterprise which is to-day the backbone of our economy, there have been developed over the years, complex laws to regulate the conduct of business transactions, and to control the formation of business enterprises.

Generally speaking a business enterprise might take one of two forms of legal entities, each having certain rights and certain responsibilities. They are:

(a) Natural Persons, i.e., — The Proprietorship; The Partnership.

(b) Artificial persons or "created" persons existing in contemplation of the law only.

For our present purpose, it is intended that the discussion should be confined to item (b), or, incorporated companies.

Incorporated Companies

Shall we now have a look at the so-called "artificial" person? What is its background? How is it governed or regulated?

The essential idea of a corporation may be said to be that of a legal person separate and distinct from its members. The law gives to a group of individuals comprising a corporation the character of a single person, that single legal person is distinct from the individuals comprising the corporation and it follows that the legal rights and duties of the corporation are distinct from the rights and duties of its members. If a corporation enters into a contract, for example, the corporation and not its members are liable on the contract.

Lord Hershell in rendering his judgment in the case of Solomon vs. Solomon & Company Limited (1897) said in part as follows:

> "A company is, at law, a different person altogether from those persons subscribing to the memorandum of agreement, and from those persons who may subsequently become shareholders."

This was the first time that the principle was definitely enacted and written into the law as such.

In the early stages of English law, companies were created by the common law itself without the action of the Crown or other public authority, but later on the principle was established that a corporation can be created only by the sovereign power, exercised over by the Crown as part of its ancient prerogative rights, or by parliament. In accordance with that principle a group of persons cannot, merely by associating themselves together, form themselves into a corporation. Corporate capacity is a privilege or gift of the State. The Hudson's Bay Company is an example of early companies formed by the prerogative rights of the Crown, its charter having been granted by King Charles II.

Dominion and Provincial Companies

Under the British North America Act (Sections 91 and 92) the Dominion and each of the Provinces were given the right to incorporate companies. Under the same Act property and civil rights of an individual as well as a corporation are regulated by the laws of the Province and not by the laws of the Dominion. It was, no doubt, the intention of the Fathers of Confederation, to provide that companies with Dominion-wide operations be incorporated under The Dominion Act and those whose business and operations did not extend beyond a particular Province would be incorporated under the applicable Provincial Act. This has not worked out in practice and we find numerous instances of companies whose interests do not extend beyond a particular Province with Dominion incorporation. On the other hand, many companies whose activities extend into almost every Province with Provincial incorporation.

The right of a Provincially incorporated company to carry on its trade and business in a Province other than that in which it is incorporated was established in the case of Bonanza Creek Mining Company. Now the question arises as to the advisability of incorporation under the Dominion Act when, apparently, the same advantages can be enjoyed by incorporation in one of the Provinces. The advantages of Dominion incorporation, so far as I know it, lie mainly in the established law that while a Province may require certain licenses and permits from a Dominion company, it cannot use its power to exclude that com-

pany from its jurisdiction, in other words, a Dominion company has a ticket of entrance into any of the Provinces and cannot be excluded from doing business therein.

It is also well established law that the Provinces cannot invoke laws against a Dominion incorporation beyond those applicable to resident companies.

A Provincially incorporated company desiring to take action in the courts against a debtor in another province is required to put up costs before filing the required documents, whereas a Dominion incorporation is not required to do so.

The disadvantages of Dominion incorporation, if they must be referred to as such, lie in the necessity of the filing of additional returns, complying with what is generally accepted to be a more stringent Companies Act, and being unable to hold real property except under license in mortmain.

Incorporation

Under The Dominion Act and all of the Provinces with the exceptions of Nova Scotia, Saskatchewan, Alberta and British Columbia, the power to create corporations may be exercised in one of three ways:

(a) By granting of letters patent.
(b) By special act of parliament.
(c) By general act of parliament.

In the Provinces of Nova Scotia, Saskatchewan, Alberta and British Columbia, the power of the State to create corporations is similar to the English method which provides for the filing of articles of association and by-laws. These Provinces may of course incorporate companies by special act and by general act of parliament.

The petition for incorporation other than that dealing with capitalization usually consists of the following:

(a) The name of the corporation.
(b) The objects.
(c) The names of the persons who are to be the provisional directors.
(d) Private or public company.

The memorandum of agreement which is filed with the application is not a public document, whereas, under the English law the corresponding articles of association are public documents.

Capitalization

The capitalization of a company is probably the most important provision contained in the charter so far as we, as accountants, are concerned. Generally speaking, and without getting into the intricacies of bonded indebtedness and the fine distinction between bonds, debentures, and debenture stock, we find that the average company has its capital divided into shares, usually both preference and common.

Common shares may have a par value or be of no par value, and usualy entitle the holders thereof to one vote in respect of each fully paid-up share. Shares of nominal or no par value are a very interesting development in the organization and formation of companies, an innovation introduced by the State of New York. This is one of those innovations brought to bear upon our own method of business which is also a land-mark in history.

Introduced by the State of New York in 1912, the then new device has been enthusiastically received throughout all of the States of the Union, the Dominion of Canada, and the various Provinces. It has even found its way into the conservative, rather sedate law, of England. Care should always be taken in providing for shares without any nominal or par value as part of the share capital of a company. While there is no fixed value given by the letters patent to such a share, the Companies Act provides that the aggregate consideration to be received from the issue and allotment of such shares must not exceed the aggregate amount specified in its charter.

The Extra-Provincial Corporations Act

In the Province of Ontario and most other Provinces there is an act known as "The Extra-Provincial Corporations Act" and Section 1A of the Ontario Act reads as follows:

> "'Extra-Provincial corporation' shall mean a corporation created otherwise than by or under the authority of an act of this Legislature."

In other words, this means that companies incorporated otherwise than by or under the authority of an act of the Province of Ontario are required to take out a license and pay a fee before being authorized to do business within the Province of Ontario.

Re-Organization of Companies

We might well ask ourselves why there is any necessity for companies to re-organize. This question is very simply answered by reference to Section 17 of The Companies Act (Ontario), however, for the purpose of this discussion I propose to approach the subject of re-organization purely from the point of view of one of the many companies whose earned surplus is many times the amount of its paid-up capital and the particular company we are about to look at is one which is substantially owned and controlled by one person who is getting old and worrying about what will happen in the event of his death.

, In any situation such as this we must have regard to the provisions of Section 73 of The Income Tax Act which deals with "Undistributed Income" and to Section 126 of that act which deals with "Tax Avoidance". On the assumption that the effect, if any, of these two sections of the act have been satisfactorily resolved, we will proceed with our re-organization and the name of the particular company will be The Brown Manufacturing Company Limited and Mr. Brown will own all of the issued and outstanding shares except qualifying shares in the hands of the two other directors.

Mr. Brown is 73 years old. He has no sons or grandsons coming along or associated in the business and he is faced with the problem of converting his shares into cash.

The balance sheet of The Brown Manufacturing Company Limited is as follows:

ASSETS	
Cash	$188,450.00
Other current	566,550.00
Fixed (worth $510,000.00)	90,000.00
	$840,000.00
LIABILITIES	
Current	$ 25,000.00
SHAREHOLDERS' EQUITY	
45 8% Preference shares	450.00
100,000 N.P.V. common shares	20,000.00
Capital surplus (created under Section 61, Dominion Companies Act)	99,550.00
Earned surplus	695,000.00
	$840,000.00

An investment company, purchased all of Brown's shares for $900,000.00 and immediately proceeded with the re-organization of the company and supplementary letters patent were subsequently issued authorizing the company to:

(a) Redeem the 8% preference shares.

(b) Change the issued 100,000 fully paid common shares without nominal or par value into 80,000 fully paid-up common shares without nominal or par value.

(c) Add to the authorized capital of the company by the creation of 45,000 Class "A" convertible shares without nominal or par value having a fixed cumulative dividend of 80c per share per annum (subsequently allotted and issued for $105,000.00) and sold to brokers for $675,000.00.

(d) Add to the authorized capital of the company 45,000 common shares without nominal or par value to be available exclusively for the conversion of the Class "A" shares mentioned above.

(e) Permit the company to transfer from capital surplus to earned surplus the amount which from time to time had been set aside by the directors out of the ascertained net profit of the company for the purpose of redeeming 1st and 2nd preference shares of the aggregate par value of $100,000.00.

In addition to the provisions of the supplementary letters patent outlined above, the directors caused a dividend of $105,000.00 to be declared on the 80,000 fully paid-up common shares and authorized the issue and allotment to the investment company of the 45,000 unissued new Class "A" shares without nominal or par value for $105,000.00 in cash.

Let us now prepare the necessary accounts to give effect to the transactions above set out:

Cash	Debit	Credit	Balance
Balance sheet	$183,450.00		
8% 1st preference shares redeemed		$ 450.00	
Dividend paid		105,000.00	

Cash	Debit	Credit	Balance
Proceeds from sale of 45,000 Class "A" shares	105,000.00		Dr. $183,000.00
8% First Preference Shares			
Balance sheet		$ 450.00	
Shares redeemed	$ 450.00		Nil
N.P.V. Common Shares			
Balance sheet		$ 20,000.00	Cr. $ 20,000.00
Changed from 100,000 to 80,000 shares outstanding.			
Capital Surplus			
Balance sheet		$ 99,550.00	
Transferred to earned surplus	$ 99,550.00		Nil
Earned Surplus			
Balance sheet		$695,000.00	
Transferred from capital surplus		99,550.00	
Dividend on common shares	$105,000.00		Cr. $689,550.00
Class "A" Shares			
Allotted and sold 45,000		105,000.00	Cr. 105,000.00

We can now prepare our balance sheet of The Brown Manufacturing Company Limited after giving effect to the above entries and the same appears as follows:

ASSETS

Cash	$183,000.00
Other current	566,550.00
Fixed (appraised @ $510,000.00)	90,000.00
	$839,550.00

LIABILITIES

Current	$ 25,000.00

SHAREHOLDERS' EQUITY

Capital authorized:
(see circular)
Issued and outstanding:

45,000 Class "A"	$105,000.00
80,000 common	20,000.00
Earned surplus	689,550.00
	$839,550.00

By adding the issued capital and earned surplus we have a total of $814,550.00 and the appraised value of the fixed assets in excess of the depreciated book value thereof was $420,000.00 resulting in a net worth or equity of $1,234,550.00.

The investment company sold through a broker the 45,000 Class A shares (which it purchased for $105,000.00) at a net return of $15.00 per share or an aggregate of $675,000.00 and the balance, namely $225,000.00, was borrowed from the bank to make up the purchase price paid to Brown of $900,000.00.

Since the Class A shares rank as a preference only in respect of dividends it follows that on liquidation or winding-up they would have no priority, therefore the investment company's equity in the net worth of the company would be represented by the 80,000 common shares (less 15,000 which it had transferred to the brokers to bonus the Class A shares) or a net of 65,000 shares out of the total issue of 125,000 or 65/125ths of $1,200,000.00 equal to say $600,000.00 which cost the $225,000.00 borrowed from the bank. The Company's average earnings over the past ten years had been at the rate of $83,500.00 per annum after taxes. We must then provide $36,000.00 for dividend requirements on the Class A shares leaving a balance of $47,500.00 applicable to the no par value common shares. Since the investment company owns 65/80ths of these shares, its portion of the earnings would be approximately $38,600.00. Now it has borrowed $225,000.00 from the bank upon which it must pay interest at 4½% and, after making allowance for this and applying the balance of earnings toward payment of the money borrowed from the bank, it will have obtained control of this company in approximately seven years' time with no investment other than a guarantee to the bank of $225,000.00.

« STUDENT SECTION »

COST ACCOUNTING

Comments by A. V. HARRIS, C.A., R.I.A.

ADVANCED COST ACCOUNTING PAPER (1950)

QUESTION 2 (16 Marks)

Hill Manufacturers Corporation make four products A. B. C. and D. Products B. C. and D. are considered as joint products, and product A. is a by-product. Material enters Process No. 1 from which emerge Product A, and the balance, which is transferred to Process No. 2. From Process No. 2, Product B emerges and the balance is transferred to Process No. 3. Product C and D emerge from Process No. 3.

The record of production and sales of joint products for the month of January was as follows:

	Production	Sales	Present Market Price
Product B	100,000 lbs.	80,000 lbs. @ $1.00 per lb.	$1.40 per lb.
Product C	10,000,000 lbs.	8,000,000 lbs. @ .45 per 100 lbs.	.50 per 100 lbs.
Product D	1,875 lbs.	937½ lbs. @ $17.60 per lb.	$16.00 per lb.

Material Costs for the raw material entering Process No. 1 in the month of January amounted to $15,000.00. Other costs of operation of the department were:

Process No. 1	$25,000.00
Process No. 2	30,000.00
Process No. 3	29,750.00
All production of Product A was sold for	7,000.00

Required:

Allowing no profit to the by-product prepare—

(1) a statement to show calculations of costs for the month of January

(2) a statement of inventories and their values at 31st January

SOLUTION TO QUESTION 2

Schedule No. 1 SCHEDULE OF COSTS OF MANUFACTURING

Material	$15,000.00		
Labour and Other Costs	25,000.00	$30,000.00	$29,750.00
Total Costs in the Process	40,000.00	30,000.00	29,750.00
Previous Department Costs		40,000.00	70,000.00
	$40,000.00	$70,000.00	$99,750.00

Schedule No. 2 TOTAL SALES VALUE

Sales for the Month

Product B	80,000 @ $1.00	$ 80,000.00
C	8,000,000 @ .45c per 100 lbs.	36,000.00
D	937½ @ $17.60	16,500.00
		$132,500.00

Sales Value of Inventories at 31st January

Product B	20,000 @ $1.40	$ 28,000.00	
C	2,000,000 @ .50c per 100 lbs.	10,000.00	
D	937½ @ $16.00	15,000.00	
			$ 53,000.00
	Total Sales Value		$185,500.00
Therefore —	Total Sales Value		$185,500.00
Deduct:	Costs of Manufacturing	$ 99,750.00	
Less:	By-Product Sales	7,000.00	
			92,750.00
	Margin		$ 92,750.00

Cost is therefore 50% of Sales.

Schedule No. 3 SCHEDULE OF ALLOCATION OF COSTS

	Product B	Product C	Product C
Sales per Schedule 2	$ 80,000.00	$ 36,000.00	$ 16,500.00
Sales values of Inventories, per Schedule 2	28,000.00	10,000.00	15,000.00
	$108,000.00	$ 46,000.00	$ 31,500.00
Costs of Manufacturing — 50%	$ 54,000.00	$ 23,000.00	$ 15,750.00
Total Production in lbs.	100,000	10,000,000	1,875
Unit Costs	.54	.0023	8.40

Schedule No. 4 SCHEDULE OF INVENTORIES AT 31st JANUARY

Product B	20,000 @ .54	$ 10,800.00
C	2,000,000 @ .0023	4,600.00
D	937½ @ $8.40	7,875.00
		$ 23,275.00

COMMENTS: QUESTION NO. 2

The above is suggested as a reasonable solution to this problem. It will be noted the costs have been allocated on the basis of sales plus sales values.

To attempt, as some students did, to allocate costs on the usual basis of production, etc., is, in this case not equitable, as the results soon showed, even from a brief scrutiny.

Average mark was 7¾ out of a possible 16 marks.